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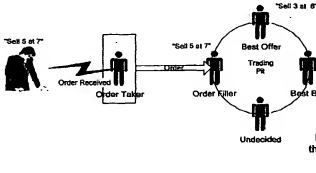
(54) Title: METHOD OF ELECTRONICALLY SIMULATING A PIT-TRADING ENVIRONMENT IN ORDER TO MAXIMIZE LIQUIDITY IN AN ONLINE EXCHANGE



(57) Abstract: A method of electronically simulating the trading environment within an open-outcry exchange. An open-outcry exchange consists of a group of traders in a single physical location called a pit. The traders signal their intention to buy or sell at a certain price by using well-understood, standardized hand signals. At any given time, only a single best buy price and a single best sell price is allowed in the pit. This is simulated in an electronic environment by electronic methods. The method consists of a plurality of buyers and sellers (traders) that connect to a central server over the internet or other network via a software application that is either downloaded over the network to the traders computer or via a browser application such as Microsoft Internet Explorer or Netscape Navigator. The trader then lists the means by which they would like to be notified should the best bid or offer for that item be bettered in the market. The trader inputs his best buy and best sell prices in a folder or basket of items for purchase or for sale. When the best bid or best offer price for a given item is bettered in the electronic marketplace, the traders who are interested in this item will receive a notification by their preferred means and be given a chance to respond by buying the item, selling the item or bettering the bested bid or offer price as their situation warrants.

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Title of the Invention

Method of Electronically Simulating a Pit-Trading Environment In Order to Maximize Liquidity in an Online Exchange

Background

In the global capital markets, being defined as markets where financial instruments or their derivatives are traded, a number of mechanisms for price determination have been perfected over the years. Price determination is the process whereby, out of numerous buyers and sellers in a single or various locations, a single best buy and a single best sell price is determined. Markets aim to be fair, efficient, liquid and transparent. Fairness is the ability for all market participants to see the correct price and the best bid and offer at the same time and have the ability to act on that information accordingly. Efficiency is the process of removing as many layers of indirection between the trader and the place where the trade takes place. Liquidity is the state created when there are enough buyers and sellers simultaneously in the market such that a buyer can always find a seller at some offer price and a seller can always find a buyer at some bid price. Transparency is the state created when all the market participants have sufficient information to make an informed buy or sell decision. Historically, the best way to achieve these conditions was to have all market participants in one location, called a pit. The method of transacting a deal was known as "open-outcry". Participants would indicate the volume to transact and the bid or offer price using standardized hand signals. An aggressor, or person taking the opposite side of the trade, would hit an opposing bid or lift an opposing offer. All participants can see the best price in the pit, have the same information, get the prices at the same time and, if there are enough traders in the pit, can always find a counter-party in most market conditions. Some traders are in the pit to buy a commodity, some to sell and some to trade and make the spread between the bid and the offer price. The latter have traditionally been known as speculators or, in certain specialized cases, market makers. Some trading networks are spread across various locations with traders contacting each other by telephone, facsimile, email or other device. These networks are known as over-the-counter networks and are characterized by a lack of transparency that often results in multiple prices being transacted for the same commodity within a similar time-frame. With the advent of computerized networks, it was

recognized that there were multiple methods by which a trade could be transacted. Two common methods are known as "order-driver" markets and "quote-driven" markets. Order driven markets are characterized by the receipt of one-sided orders. These are orders whereby the trader only offers to buy or sell, not both. A quote-driven market allows one-sided orders but, in addition, employs market-makers who are obligated to make two-sided quotes. That is, they must always specify at what price they are willing to buy and sell simultaneously. This allows participants to place "market orders" or orders which are filled at the best bid or offer price in the market. The market-maker, at the top of the queue is required to take the other side of the trade. When "taken out", or hit or lifted, they are required to replenish their bid or offer. Their incentive is the ability to make money based on the spread between the bid or offer. An order driven market is sufficient in trading environments where there are enough participants to ensure market liquidity. In thinly traded markets, market-makers are essential to ensure liquidity. In an open-outcry market, any participant can act as a de-facto market maker but only discloses a one-sided price. As such, even though only one side of the market is disclosed by a given market maker, the other side is known to that individual who can switch sides depending on circumstances and, thus, liquidity is ensured. Many modern electronic exchanges suffer from the dual problem of having a) not enough liquidity inherent in the economies of the industry and b) the inability to turn a loose over-the-counter network of traders into a coherent market-making infrastructure. The result is an electronic market which is characterized by the receipt of spurious bids and offers which sit in an electronic "order queue" waiting for an opposing counter-party. The lack of sufficient counter-parties combined with the lack of notification of potential price-betterment common in an open-outcry environment combine to create inefficient and illiquid markets. Traders submit orders without a good understanding of whether they will be able to find a counter-party, if at all. This leads to limited use of the electronic markets as a substitute for existing over-the-counter networks. The invention described in this document is a method whereby a pit-trading environment, being the best method of generating liquidity for a given commodity, is simulated electronically. As such, orders submitted to the exchange do not sit idly in a queue but announce themselves to the market in the case that a price is bettered on either side (bid or offer) of the market. Traders who have essentially joined the pit by indicating an interest in the price of a commodity will be notified that the price for their item of interest has been bettered. Notification, in this case can come in many forms as long as all of the interested participants have the potential of having been notified in a reasonably similar time-frame.

Field of the Invention

The field of the invention relates to a method of electronically simulating a pit trading environment with the use of remote manual and electronic alerts in the event of price betterment in the market and displays to indicate the relative positions of individual traders to the other traders in the market.

Description of Prior Art

The area of computerized trading and exchange systems is a crowded one. There are many methods and systems both patented and non-patented extent in the market today. As such, it is likely that there are many granted patents and patent applications which relate, in a peripheral fashion, to the invention described in this document. However, it is the assertion of the inventors, that none of the existing inventions currently address the specific problem of generating liquidity through the application of computerized versions of a pit-trading system. Current patents and pending patent applications fall into a few fairly consistent categories. These include order crossing or matching algorithms, methods of clearing and settling trades and methods of aggregating orders and distributing prices. The most general patents and patent applications which border on the periphery of this invention are described herein.

The document entitled US5842178: Computerized quotation system and method describes a method whereby participants in a market can elect to participate in the bidding for a specific commodity based on a set of filters which are set by the participant to determine the class of commodity in which the participant is interested. The system is specifically geared towards alerting a potential participant to the availability of a commodity in which the trader may be interested based on the set filters. The idea, essentially, is to democratize the process of selecting vendors to participate in a given bidding process, such that the purchaser has the greatest set of potential sellers from which to choose. Although the system relies on a broadcast-based methodology to facilitate the process of alerting market participants of the potential vendors and products available, it does not focus on the concept of alerting existing, interested market participants to the prospect of prices bettered in their primary markets. It is this key

feature which is core to the invention described in this document and critical to the process of generating liquidity in the markets specified.

In US4554418: Information monitoring and notification method and apparatus, a method is described whereby an arbitrary, user-defined set of alerts can be specified for market data generated as a result of trading activity in the financial markets. The types of activity are non-specific and the methods of alert as well as the messaging mechanisms are general and not limited. The purpose of this application seems to be to capture, as generally as possible, the concept whereby a user, via a terminal on a telecommunications network of any type can define an alert function that is then applied to a set of incoming financial data from a second external source, such as a market data feed. The alert functions are then applied against the incoming data at the site where the alerting mechanism is implemented and alert triggers result in messages going out to the user using some type of electronic format. This is the most general alerting related application found in the prior art search for the patent described in this document. The difference between this prior art and the currently described invention is that it's focus is on applying generic alerting algorithms to a secondary external source of financial data and generating the alert. The current invention differs in that its alerts are not on externally supplied market data but on internally generated price betterment inherent to the market with the specific intention of allowing market participants to fully appreciate the position of their bid or offer relative to the market in which they are participating and not against an abritrary external real-time feed.

US3573747: INSTINET COMMUNICATION SYSTEM FOR EFFECTUATING THE SALE OR EXCHANGE OF FUNGIBLE PROPERTIES BETWEEN SUBSCRIBERS is the original patent for an electronic exchange system which would become the backbone of the U.S. electronic communication network (ECN) where a large percentage of NASDAQ shares are traded. Almost every patent application relevant to the exchange business either directly references this patent or can be traced back to it through its references. The essence of this patent deals with the heart of an electronic exchange system whereby orders and quotes are received by an electronic network and booked into a central computer. The orders are listed in priority according to price and time after being matched against the existing order book for opposing orders. There is great detail with respect to the matching algorithm and how remaining partially filled orders are handled. This prior art was included to cover the area of matching and order

execution and to demonstrate how this area is distinct from the area of the current invention. The current invention deals specifically with a method whereby bid/offer betterment alerts combined with market-depth rankings displays can be used to simulate electronically an offline open-outcry exchange whereas this prior art is concerned specifically with the order crossing process itself. No other prior art in this vein will be referenced as it is the contention of the inventors that all core exchange-specific patents and applications are comparable in their divergence from the claims made by the current invention.

There is a thread of innovation in electronic trading that deals specifically with the order-entry process itself and how it can be used as a way of generating liquidity in markets. Typical of this thread is US6041308: System and method for motivating submission of conditional purchase offers. This particular patent is focused on the concept of the Conditional Purchase Offer (CPO) and how permutations of it can be used to stimulate online commerce. A CPO differs from a standard order or quote in the sense that it is not a commitment to purchase but is subject to negotiation based on an additional condition supplied by the buyer. Buyers and sellers linked using such a method would then engage in a dialogue that may or may not result in a contract being consummated. This prior art attempts to enhance the possibilities of a deal being done by compensating the buy side should the deal be rejected by the sell side. Although the document does not mention the idea of generating additional liquidity, it is fair to say that that is the sum result of the described prior art. However, the method of achieving this end is focused purely on the order mechanism itself and not on ideas that increase the transparency and efficiency of the market information itself as is the focus of the currently described invention.

US6014644: Centrally coordinated communication systems with multiple broadcast data objects and response tracking is an invention which covers the area related to tracking the interaction between the buyer and seller during the process of deal consummation. The concern here is with the ability of a buyer or seller to access a catalog of counter-parties and submit bids/offers via electronic broadcast. The responses from the targeted counter-parties are then tracked and collated into a broadcast object. The object is then passed between agents involved in the transaction thus providing an audit trail which describes the state of the conversation between various potential counter-parties which may or may not result in a deal. The obvious difference between this prior art and the current invention is that this invention deals with the process of the interaction between the counter-parties as the transaction

is processed. This thread of innovation, which involves the deal conversation process has many permutations throughout this area of endeavor but does not address the component of the deal involving the notification of potential counter-parties specifically with respect to the fact that an item for which the interested party has registered interest has had it's best bid/offer in the market bettered and does not give a relative reflection of the stance of a particular counter-party with respect to the other particpants in the market. In that regard, the current invention differs substantially from this and other related prior art.

Summary of the Invention

The invention is a method and a process whereby an open-outcry, pit-trading environment can be simulated electronically. The method involves the participation of multiple, anonymous buyers and sellers, known as traders who "log in" to the computer system via remote means. The means involve the logging in over a public or private network to a central computer comprised of one or more processing units running any operating system. The traders then are allowed to create one or more folders which can be labeled according to personalized requirements. The trader then is allowed to upload by electronic means a list of related commodities, either for purchase or for sale, to the folder. For each commodity, the trader is allowed to specify a volume to transact and a buy or sell price as the case dictates. The folder of parts and the specified buy or sell price is then listed against the current best buy and sell price in the market. The price on the same side of the market as the trader is listed for the purpose of demonstrating to the trader how far off he is from the market and the price on the opposite side of the market is displayed for the purpose of demonstrating to the trader how close he is to being hit or lifted. The trader then has the ability to move from a given commodity listed for sale or purchase to a display which shows all of the current bids or offers in the market for that component ranked in priority according first to price and then to time. The trader further has the ability to navigate to a screen which will allow him the opportunity to indicate that he wishes to be informed, by some means, when certain conditions have been met. The conditions include:

- Notification when any bid or offer in the market for any item for which he is currently interested has been bettered.

- Notification when any bid or offer in the market for any item for which he has show interest in or purchased or sold in the past has been bettered.
- Notification when any transaction in the market occurs for an item in which he has currently registered interest or in the past has shown interest either expressly or through the purchase or sale of the same item.

The trader will then be able to indicate by which means, electronic or manual, that he wishes to be notified should any of the pre-described conditions be met. The methods can include any traditional or conventional methods including email, facsimile, telephone, SMS, WAP or any electronic means that the trader finds convenient. In the event that any of the above described conditions are met, the trader will be notified using the methods described. In this method, the characteristics of a pit-trading environment have been sufficiently simulated to provide a liquid, transparent trading environment; all market participants in a given "pit" are virtually present and able to receive the "outcry" indicating a betterment in the price of a given commodity in which they have expressed interest by their virtual participation in the market.

description of the preferred embodiments

The present invention is a method by which an open-outcry, pit-trading environment can be simulated in an electronic form. As described in the background section of this document, this method of trading is generally accepted as the one whereby the greatest liquidity has traditionally been generated for a given market. It is noticed that there are two common traits to this type of traditional trading environment. The first is the the physical proximity of many traders in one location. This allows the generation of liquidity through the visual contact which is made by persons in close proximity but may be lost in a computerized trading environment. Liquidity is generally enhanced in the pit due to two factors; a) a trader may not be immediately interested in a trade but may decide to trade due to the effect of visibly seeing orders transmitted to the pit by order takers and b) the effect of being able to immediately hear when a bid or offer is changed has an effect on the sentiment of the trader. The first factor influencing liquidity is simulated by allowing the trader to see a virtual representation of all of the orders in the market along with said trader's own order, bid or offer, highlighted against the other orders.

FIG 1 shows a representation of a typical pit-trading environment with traders, order fillers and order takers all involved in the order process. In this diagram, an order is received via phone or other means from a customer outside of the exchange. The order is taken by an order taker at the desk of a brokerage firm physically located close to the trading floor. The order is then sent, via runner, to the an "order filler" who is standing in the physical trading pit. The pit is populated by numerous traders who represent various interests, both personal and corporate, in the commodity being traded. Some of the traders are "locals" who simply exist to make a living by taking a quick spread between the buy and the sell price. Some of the traders are executing orders for corporate interests on behalf of a brokerage firm who maintains a seat on the exchange. The order filler then attempts to get the best buy or sell price for that commodity. When the order arrives in the pit, the current best buy is on a price of 5 and the current best sell is at a price of 8. The "undecided" trader obviously is not willing to buy at 8 or sell on 5. When the new order to sell at 7 arrives, two things can happen; the undecided trader may decide to buy at 7 or the buyer on a price of 5 may decide to increase his buy order to 7. In either case, a deal is done because the current buyer and/or the undecided trader can visually see the new order being transmitted to the pit and hear the announcement of the order to sell at 7. In a computerized environment, the order to sell at 7, having been transmitted to the pit, the potential counter-parties to the trade will not hear of the price improvement because they are not physically located where the new price is announced. Using the described invention, the prices are "announced" as if the trade was being done in an open-outcry environment using various broadcasting means, both electronic and manual.

Brief Description of Open-Outcry Trading Terms: In an open-outcry environment, hand-signals are combined with shouts to indicate the price and quantity that a trader is willing to transact a deal at. The hand signals are not relevant to this document, however, a brief description of the verbalized items is warranted. An indication to buy takes the following form: X on Y where X denotes the quantity, "on" denotes an indication to buy and Y denotes the price. X at Y where X denotes the quantity, "at" denotes an indication to sell and Y denotes the price. A seller who sells to a buyer is said to "hit" the buyers bid. A buyer who buys from a seller is said to "lift" that sellers offer.

FIG 2 shows a more complete representation of the activity which is occuring in the open-outcry pit. The environment is characterized by a plurality of traders, market makers and order fillers who are each trying to buy at

the lowest price possible and sell at the highest price possible. Each trader announces the price and quantity at which he is willing to buy or sell. Rules usually indicate that only a single best buy or sell may be announced at one time. Exchange officers will reprimand a trader who announces a price that is currently not the best price in the pit. A trader that wishes to quit his current price is expected to announce the fact usually by exclaiming "out!" At that time, a different price may be announced. According to a strict interpretation of the rules, a trader who does not announce his intention to quit his current bid or offer price is liable to be hit or lifted as the case may be. A trader standing in the pit generally listens to the bids and offers announced and builds a mental picture of what the market depth is. The depth is defined as a list of all the bids and offers extent in the market listed in priority of price. In a pit, the depth is constantly liquid due to the fact that only the best bid or offer in the market is announced and that all participants maintain only a mental indication of what their own best buy or sell price is and what the others in the pit may be buying or selling at. This mental indication of depth is a critical factor in the creation of a liquidity of a market. As an adjunct to the concept of physical propinquity, the concept of the mental maintenance of market depth in the mind of a trader is simulated electronically using a two-sided, price/time priority queue which is linked to the list of items that the trader is trading and his preferred methods of being contacted in the event of price betterment.

The following figures are drawn from a particular implementation of the described invention. In particular, the industry represented is the global secondary market for the trading of semiconductor components. As such, the commodities traded and their respective prices will be specific to this particular industry.

Generalizing from the previously described case of a price determination for a given commodity, a trader in an electronic forum needs the ability to virtually participate in several "pits" at any time. As such, an electronic facility, known as an Order Folder or an Order Basket is provided by the current invention to link all of the trader's commodities both to an electronic indication of market depth and an electronic notification system which provides alerts in the case of bid/offer/price betterment for the indicated commodities.

FIG 3 provides an illustration of such a basket which shows an item offered for purchase along with the price and quantity offered for purchase. As such, a "Buy Folder" indicates all of the "pits" that a given trader is interested in

trading in. The particular commodity is represented by a part number (P/N). The trader's own buy price and volume are listed along with the best buys and sells in the market which simulates the traders mental picture of the prices extent in the "pit". Alongside the "virtual pit" for a given part is a link to the display of the market depth for that pit and a link to a screen whereby the trader can modify his own buy price. Finally, links are provided to displays which indicate the market depth for that particular commodity.

Fig 4 illustrates the same information available to the trader on the sell side. To facilitate this feature, the "Sell Folder" indicates all of the "pits" that a given trader is interested in trading in. The particular commodity is represented by a part number (P/N). The trader's own sell price and volume are listed along with the best buys and sells in the market which simulates the traders mental picture of the prices extent in the "pit". Alongside the "virtual pit" for a given part is a link to the display of the market depth for that pit and a link to a screen whereby the trader can modify his own buy price.

FIG 5 shows a visual representation of the information which is available to the trader who is standing in a pit and viewing the incoming orders and bids and offers being announced. The present invention aims to encapsulate all of the information available to a trader in a pit within a given computerized display. In effect, it supplants the traders mental image of the current state of the pit. The information consists of all of the buyers and sellers currently in the market, their volume bid or offer and the current best bid or offer price in the market. In relation to the best bid or offer price, the trader understands where their own order ranks, given that only a given trader can know what their own best bid or offer price is at any given time. The second factor involved the immediate and thorough dissemination of changes in bid, offer and transacted prices. In a pit trading environment, it is mandated that all offers to purchase and sell be announced loudly and to all participants equally. A price announced quietly or to a single other participant or subset of participants is not generally allowed by market regulators.

We Claim

1. A method of allowing traders, defined as any buyer or seller, of any given financial or physical commodity to list for purchase or sale said commodities and view their listings in relation to other buyers or sellers as a way of electronically simulating the proximity of other traders in a pit, comprised of:

   - Receiving and listing for a plurality of buyers who have interest in purchasing a commodity or commodities all of the said commodities of interest in a database on a central server.
   - Receiving and listing for a plurality of sellers who have interest in purchasing a commodity or commodities all of the said commodities of interest in a database on a central server.
   - An order folder which allows the traders the ability to group related commodities indicating the amount of each commodity for purchase or sale and the price for purchase or for sale.
   - Listing of the outstanding bids and offers of each of the commodities listed in order of best time and price in a format that allows the traders to see their own buy or sell price ranked alongside the other buy and sell prices in the market.

2. The method of claim 1, wherein the listing of related groups of bids or offers is in a component called an order folder.
3. The method of claim 1, wherein the order folder is defined as a group of related items for purchase or for sale which, for each item, contains the amount bid or offered, the bid or offer price and the current best bid or offer price and volume bid or offered in the market.
4. The method of claim 1, wherein the display mechanism is an internet browser or provided application running on any processor and connected to any given network.
5. The method of claim 1, wherein the order folder additionally contains, for each item listed, HTML hyperlinks to displays of market depth and hyperlinks to screens where a bid or offer can be modified.
6. The method of claim 1, wherein the process of navigating from the order folder to the market depth screen is a mouse click.

7. The method of claim 1, wherein the display of market depth is a two-sided display, the left side containing all of the bids in the market for that commodity ranked in price/time priority and the right side containing all of the offers in the market for that commodity ranked in price/time priority.
8. The method of claim 1, wherein the market depth display will provide a highlight behind the bid or offer which was submitted by the trader that is logged in to the system thus showing the ranking of that trader's bid and offer relative to other bids and offers in the market.
9. A method of generating liquidity for an electronic exchange on any given computer network to facilitate the process of the anonymous matching of buyers and sellers of any given financial or physical commodity by electronically simulating the open-outcry process found in a trading pit, comprised of:

   - Allowing the traders to indicate a number of electronic and manual methods by which they would like to be contacted in the event that one of the commodities for which they have expressed an interest has its best bid or offer price in the market bettered.
   - Making a notification to each of the traders using the notification methods in the event that the best bid or offer price in the central computer is bested by another bid or offer for the commodities for which interest has been expressed by said trader.

10. The method of claim 9, wherein a trader electronically indicates using an internet browser or provided application, from a list of available choices, a method with which said trader wishes to be notified in the event that one of a given set of options is met, comprised of:

    - The choice of being notified in the event that any item for which that trader has listed a buy or sell entry in any folder has it's best bid or offer price in the market bettered by another participant.
    - The choice of being notified in the event that any item for which that trader has listed a buy or sell entry in any folder has completed a transaction by any other counter-parties in the market.
    - The choice of being notified in the event that any item that the trader has previously transacted a deal on has it's bid or offer price bettered in the market or is otherwise transacted.

11. The method of claim 9, wherein the trader is notified in the event that any of the indicated choices are triggered due to the activity of other traders.

12. The method of claim 9, wherein the trader is allowed to specify, using an internet browser or provided application, the methods by which said trader wishes to be notified in the event of one of said traders indicated choices being triggered.

13. The method of claim 9, wherein the notification method in the event that one of the specified choices have been triggered in any method, electronic or manual, including, but not limited to, email, facsimile, telephone, SMS, WAP or other commonly used messaging methodology.

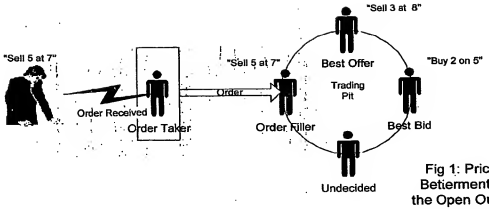

Fig 1: Price Betterment in the Open Outcry System

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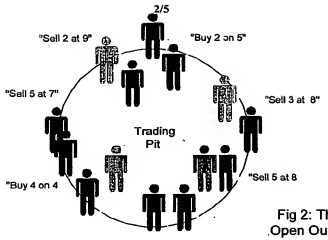

Fig 2: The Open Outcry System

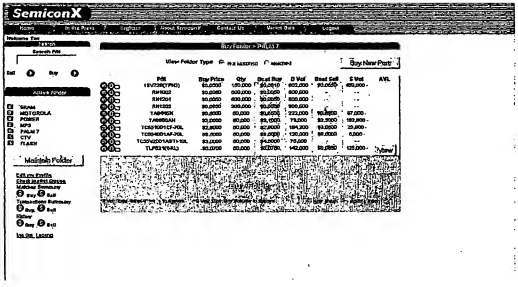

Fig 3

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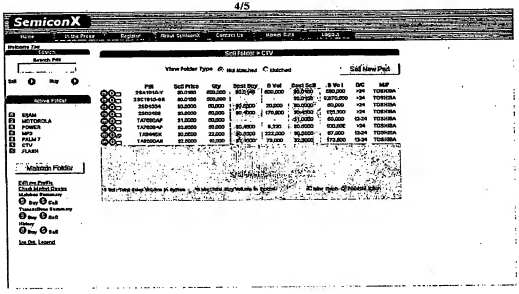

Fig 4

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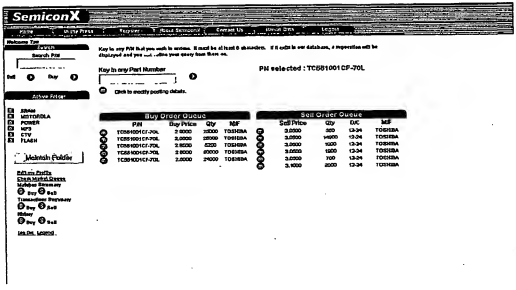

Fig 5

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(54) Title: METHOD OF ELECTRONICALLY SIMULATING A PIT-TRADING ENVIRONMENT IN ORDER TO MAXIMIZE LIQUIDITY IN AN ONLINE EXCHANGE

(57) Abstract:

PATENT COOPERATION TREATY

PCT

DECLARATION OF NON-ESTABLISHMENT OF INTERNATIONAL SEARCH REPORT

(PCT Article 17(2)(a), Rules 13ter.1(c) and Rule 39)

Applicant's or agent's file reference	IMPORTANT DECLARATION	Date of mailing *(day/month/year)*
		18/07/2002
International application No.	International filing date *(day/month/year)*	(Earliest) Priority date *(day/month/year)*
PCT/SG 01/00243	29/11/2001	08/12/2000
International Patent Classification (IPC) or both national classification and IPC	G08F17/60	
Applicant		
SEMICON EXCHANGE PTE. LTD.		

This International Searching Authority hereby declares, according to Article 17(2)(a), that **no International search report will be established** on the international application for the reasons indicated below

1. [X] The subject matter of the international application relates to:
   - a. [ ] scientific theories.
   - b. [ ] mathematical theories
   - c. [ ] plant varieties.
   - d. [ ] animal varieties.
   - e. [ ] essentially biological processes for the production of plants and animals, other than microbiological processes and the products of such processes.
   - f. [X] schemes, rules or methods of doing business.
   - g. [ ] schemes, rules or methods of performing purely mental acts.
   - h. [ ] schemes, rules or methods of playing games.
   - i. [ ] methods for treatment of the human body by surgery or therapy.
   - j. [ ] methods for treatment of the animal body by surgery or therapy.
   - k. [ ] diagnostic methods practised on the human or animal body.
   - l. [ ] mere presentations of information.
   - m. [ ] computer programs for which this International Searching Authority is not equipped to search prior art.

2. [X] The failure of the following parts of the international application to comply with prescribed requirements prevents a meaningful search from being carried out:
   [ ] the description [X] the claims [ ] the drawings

3. [ ] The failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions prevents a meaningful search from being carried out:
   [ ] the written form has not been furnished or does not comply with the standard.
   [ ] the computer readable form has not been furnished or does not comply with the standard.

4. Further comments: SEE FURTHER INFORMATION SHEET

Name and mailing address of the International Searching Authority	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Roger Thomas

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FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 203

A meaningful search is not possible on the basis of all claims because all claims are directed to - Scheme, rules and method for doing business - Rule 39.1(iii) PCT

The claims relate to subject matter for which no search is required according to Rule 39 PCT. Given that the claims are formulated in terms of such subject matter or merely specify commonplace features relating to its technological implementation, the search examiner could not establish any technical problem which might potentially have required an inventive step to overcome. Hence it was not possible to carry out a meaningful search into the state of the art (Art. 17(2)(a)(i) and (ii) PCT; see EPC Guidelines Part B Chapter VIII, 1-6).

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.